CLAIMS:

1.   A method of embedding auxiliary data in a host signal, the method comprising
the steps of:
   —   using a predetermined data embedding method having a given embedding rate and
       distortion to produce a composite signal;
5 —   using a portion of said embedding rate to accommodate restoration data identifying the
       host signal conditioned on said composite signal; and
   —   using the remaining embedding rate for embedding said auxiliary data.

2.   A method as claimed in claim 1, comprising the steps of:
10 —   dividing the host signal into successive segments;
   —   applying the predetermined data embedding method to said segments;
   —   accommodating in a segment the restoration data for a previous segment.

3.   A method as claimed in claim 2, wherein each segment comprises the
15 restoration data for said previous segment as well as auxiliary data.

4.   A method as claimed in claim 2, comprising the steps of:
   (a)   accommodating auxiliary data only in a segment of a given length;
   (b)   accommodating, in a subsequent segment, restoration data only for the
20 previous segment
   (c)   adapting the length of said subsequent segment to the amount of restoration
data being embedded therein;
   (d)   repeating steps (b) and (c) a predetermined number of times.

25 5.   A method as claimed in claim 4, wherein said step (d) comprises repeating
steps (b) and (c) until the length of the subsequent segment is smaller than a predetermined
threshold.

6.   An arrangement for embedding auxiliary data (w) in a host signal (X), the
arrangement comprising:

   – a predetermined data embedder (23) having a given embedding rate and distortion to
     produce a composite signal (Y) with embedded data (d);

5   – means (24,25) for generating restoration data (r) identifying the host signal (X)
     conditioned on the composite signal (Y); and

   – means (26) for accommodating said restoration data (r) in a portion of said embedded
     data (d) and said auxiliary data (w) in the remaining portion of said embedded data.

10 7.   A method of reconstructing a host signal from a composite signal representing
a distorted version of said host signal with data embedded therein, the method comprising the
steps of:

   – retrieving the embedded data from the composite signal;

   – splitting the embedded data into restoration data and auxiliary data;

15   – reconstructing the host signal using the reconstruction data, given the composite signal.

8.   A method as claimed in claim 7, comprising the steps of:

   – dividing the composite signal into successive segments;

   – using the restoration data accommodated in a segment for reconstructing a previous

20   segment of the host signal.

9.   A method as claimed in claim 8, wherein each segment of the composite
signal comprises the restoration data for said previous segment of the host signal as well as
auxiliary data.

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10.   An arrangement for reconstructing a host signal (X) from a composite signal
(Y) representing a distorted version of said host signal with data (d) embedded therein, the
arrangement comprising:

   – means (43) for retrieving the embedded data (d) from the composite signal (Y);

30   – splitting means (44) for splitting the embedded data (d) into restoration data (r) and
     auxiliary data (w);

   – reconstruction means (46) for reconstructing the host signal (X) using the reconstruction
     data (r), given the composite signal (Y).

11.   A composite information signal (Y) with embedded data (d) comprising restoration data (r) and auxiliary data (w), said restoration data identifying the distortion of a host signal (X) conditioned on said composite signal.